CHAPTER 2. TRAINING PROGRAMS AND AIRMAN QUALIFICATIONS

SECTION 1. SCOPE, CONCEPTS, AND DEFINITIONS

281. TRAINING PROGRAM OVERVIEW. This chapter contains direction and guidance to be used by FAA personnel responsible for the evaluation, approval, and surveillance of Part 121 and Part 135 flightcrew training programs.

A. An applicant for an air carrier certificate or operating certificate is required to develop a training program. An existing operator may need to revise its training program when purchasing new equipment, operating in a new environment, obtaining new authorizations, or when new FAA requirements are specified. These new or revised training requirements must be incorporated into an operator's training program. Each Part 121 and Part 135 certificate holder (with the exception of a Part 135 operator using a single pilot or only one pilot-in-command (PIC) in its operation) must obtain FAA approval of curriculums used for training flight crewmembers, instructors, check airmen, and aircraft dispatchers. The operator is responsible for ensuring that its training program is complete, current, and in compliance with regulations. (Unless otherwise specified in this chapter, the term "operator" applies equally to an applicant for a certificate and an existing certificate holder).

B. It is the policy of Flight Standards Service (FSS) to encourage operators to be innovative and creative when developing training methods and techniques. Principal Operations Inspectors (POI's) are responsible for ensuring that regulatory requirements are met and that the operator's crewmembers and dispatchers can competently perform their assigned duties before they are authorized to enter revenue service. POI's are empowered by FSS to use discretion, allow latitude, and to exercise judgment concerning the details of training program approval and training techniques that operators use.

283. DEFINITIONS. The following terms are used throughout this handbook and are defined as follows:

- *Training Program:* A system of instruction which includes curriculums, facilities, instructors, check airmen, courseware, instructional delivery methods, and testing and checking procedures. This system must satisfy the training program requirements of Part 121 or Part 135 and ensure that each crewmember and dispatcher remains adequately trained for each aircraft, duty position, and kind of operation in which the person serves.

- *Modular Training:* The concept of program development in which logical subdivisions of training programs are developed, reviewed, approved, and modified as individual units. Curriculum segments and modules may be used in multiple curriculums. The modular approach allows great flexibility in program development and reduces the administrative workload on both operators and instructors in the development and approval of these programs.

- *Categories of Training:* The classification of instructional programs by the regulatory requirement the training fulfills. Categories of training consist of one or more curriculums. The categories of training are initial new-hire, initial equipment, transition, upgrade, recurrent, and requalification.

- *Curriculum:* A complete training agenda specific to an aircraft type, a crewmember or dispatcher duty position, and a category of training. An example is an "initial new-hire, Boeing 727 flight engineer curriculum." Each curriculum consists of several curriculum segments.

- *Curriculum Segment:* The largest subdivision of a curriculum containing broadly related training subjects and activities based on regulatory requirements. Curriculum segments are logical subdivisions of a curriculum which can be separately evaluated and individually approved. Examples are a "ground training" segment and a "flight training" segment. Each curriculum segment consists of one or more training modules.

- *Training Module:* A subpart of a curriculum segment which constitutes a logical, self-contained unit. A module contains elements or events which relate to a specific subject. For example, a ground training curriculum segment could logically be divided into modules pertaining to aircraft systems (such as hydraulic, pneumatic, and electrical). As another example, a flight training curriculum segment is normally divided into flight periods, each of which is a separate module. A training module includes the outline, appropriate courseware, and the instructional delivery methods. It is usually, but not necessarily, completed in a single training session.

- *Element:* An integral part of a training, checking, or qualification module that is not task-oriented but subject-oriented. For example, an "electrical power" ground training module may include such elements as a DC power system, an AC power system, and circuit protection.

- *Event:* An integral part of a training, checking, or qualification module which is task-oriented and requires the use of a specific procedure or procedures. A training event provides a student an opportunity for instruction, demonstration, and/or practice using specific procedures. A checking or qualification event provides an evaluator the opportunity to evaluate a student's ability to correctly accomplish a specific task without instruction or supervision.

- *Checking and Qualification Module:* An integral part of a qualification curriculum segment which contains checking and qualification requirements specified under Part 121 or Part 135. For example, a qualification curriculum segment may contain a proficiency check module, a LOFT module and an operating experience (qualification) module.

- *Courseware:* Instructional material developed for each curriculum. This is information in lesson plans, instructor guides, computer software programs, audiovisual programs, workbooks, aircraft operating manuals, and handouts. Courseware must accurately reflect curriculum requirements, be effectively organized, and properly integrate with instructional delivery methods.

- *Instructional Delivery Methods:* Methodology for conveying information to a student. For example, this may include lectures, demonstrations, audiovisual presentations, programmed and directed self study workshops, and drills. Training devices, simulators, aircraft, and computer work stations are also considered instructional delivery methods.

- *Testing and Checking:* Methods for evaluating students as they demonstrate a required level of knowledge in a subject, and when appropriate apply the knowledge and skills learned in instructional situations to practical situations.

- *Training Hours:* The total amount of time necessary to complete the training required by a curriculum segment. This must provide an opportunity for instruction, demonstration, practice, and testing, as appropriate. This time must be specified in hours on the curriculum segment outline. A training hour includes time for normal breaks, usually 10 minutes each hour. Lunch breaks are not included.

- *Programmed Hours:* The hours specified in Part 121 for certain categories of training (initial new-hire, initial equipment, and recurrent). Programmed hours are specified in curriculum segment outlines in terms of training hours.

- *Duty Position:* The functional or operating position of a crewmember or aircraft dispatcher. For Parts 121 and 135 operations, duty positions are pilot-in-command (PIC), second-in-command (SIC), flight engineer (FE), flight attendant (FA), flight navigator (NAV), and aircraft dispatcher (AD).

- *Training/Checking Month (Base Month):* The calendar month during which a crewmember or aircraft dispatcher is due to receive required recurrent training, a required flight check, a required competency check, or required operating familiarization. Calendar month means the first day through the last day of a particular month.

- *Eligibility Period:* Three calendar months (the calendar month before the "training/checking month," the "training/checking month," and the calendar month after the "training/checking" month). During

this period a crewmember or aircraft dispatcher must receive recurrent training, a flight check, or a competency check to remain in a qualified status. Training or checking completed during the eligibility period is considered to be completed during the "training/checking month" and is due in the "training/checking month" in the following year.

- *Initial Approval:* An FAA letter which conditionally authorizes an operator to begin instruction to qualify personnel under a specific curriculum or curriculum segment pending an evaluation of training effectiveness. An initial approval letter must specify an expiration date for the conditional authorization.

- *Final Approval:* An FAA letter, without an expiration date, which authorizes an operator to continue training in accordance with a specific curriculum or curriculum segment.

285. AIRCRAFT FAMILIES. There are five basic families of aircraft used in Parts 121 and 135 operations. Aircraft are grouped into families according to their performance and flight characteristics to simplify development of training programs. The ground and flight training requirements for crewmembers are significantly different for each family of aircraft. Within each aircraft family, however, the ground and flight training requirements are similar, even though individual aircraft may be quite different in construction and appearance. The five families of aircraft are as follows:

- Transport category and commuter category airplanes
- Multiengine, turbopropeller and SFAR airplanes
- Multiengine, general-purpose airplanes
- Single-engine, general-purpose airplanes
- Helicopters

A. *Transport Category and Commuter Category Airplane Family.* The transport category and commuter category airplane family includes all airplanes certified under Part 25 (and predecessor rules such as CAR 4, 4A and 4B and SR 422, 422A, and 422B) and those few turbojet airplanes certified under Part 23. This family of airplanes also includes those few large airplanes of 30 or more passenger seats certified under Aero Bulletin 7A (DC-3, L-18, C-46) known as large, non-transport airplanes when operated in revenue service. This aircraft family also includes those airplanes certified under Part 23 in the commuter category.

B. *Multiengine, Turbopropeller, and SFAR Airplane Family.* This aircraft family consists of turbopropeller airplanes and those airplanes certified under Part 23 in the normal category. In accordance with FAR 135.293(b), certain airplanes of particular make and model have been determined to be equivalent to other models in a series. Airplanes of an equivalent series may be considered a single type for purposes of training and checking.

FIGURE 3.2.1.1.A
EQUIVALENT SERIES OF THE MULTIENGINE, TURBOPROPELLER, AND SFAR AIRPLANE FAMILY

- Beechcraft Turbopropeller: B65-A90, 90, 99, 100, and 200
- Cessna Turbopropeller of the 400 series
- Piper Cheyenne Series
- Rockwell Commander Turbopropeller: 680T, 690V, 680W, and 690
- Fairchild SA 226-227 Series

C. *Multiengine, General-Purpose Airplane Family.* This aircraft family includes all multiengine airplanes certified for operations with 9 or less passenger seats and not more than 12,500 pounds maximum takeoff weight (MTOW). It does not include any airplanes certified in the transport or commuter category regardless of the MTOW. Crewmembers operating airplanes in this family must have similar knowledge, skills, and abilities to operate them under Part 135. For example, a pilot operating an airplane within this family may require diversified training in short and soft field landings, but is not required to have training in V1 cuts. This type of operation may require specific training, such as seaplane operations.

FIGURE 3.2.1.1.B
EQUIVALENT SERIES OF THE MULTIENGINE, GENERAL-PURPOSE AIRPLANE FAMILY

- Beechcraft Reciprocating: B50, 55, 56, 57, 58, 60, 70, and 95
- Cessna Reciprocating: C310, 320, 340, and 400 Series
- Cessna: 336, 337
- Piper Reciprocating: PA-23, PA-30, PA-31, PA-34, and PA-39
- Rockwell Commander Reciprocating: 500, 560, 680, 685, and 720

D. *Single-Engine, General-Purpose Airplane Family.* This aircraft family includes all single-engine airplanes of not more than 12,500 pounds MTOW other than turbine-powered airplanes. Crewmembers operating airplanes in this family must have similar knowledge, skills, and abilities to operate them under Part 135. For example, pilots operating single-engine airplanes are required to have training that applies to all airplanes in this group, such as forced- landing procedures. The type of operation may require specific training, such as seaplane or skiplane training.

E. *Helicopter Family.* This aircraft family includes all helicopters. Helicopter operations under Part 135 require similar knowledge, skills, and abilities. General training requirements for this family of aircraft include such events as autorotation and anti-torque failure. The type of operation may require specific training in events such as high altitude landings or airborne radar approach (ARA) procedures.

NOTE: There are other types of aircraft such as single engine turboprop which do not fit in the five families of aircraft. Each of these types of aircraft require separate training programs.

287. TRAINING PROGRAMS: *A Schematic Depiction.*

A. Some elements of a training program are depicted in figure 3.2.1.1.C to show the relationship between the total training program and the categories of training, curriculums, curriculum segments, and training modules. The illustration in figure 3.2.1.1.C is representative only and is intended to present a framework for the modular development of a training program. By using this "modular approach," the POI has various strategies available for the evaluation of training effectiveness and for the planning of long-term surveillance. These strategies are discussed in section 2 of this chapter.

B. The illustration in figure 3.2.1.1.C consists of five parts as follows:

(1) Part A depicts representative components which, when combined, constitute an operator's overall training program. These components differ in that some must be specifically approved by the FAA (for example, courseware and check airmen), while others are accepted as essential supporting elements (for example, facilities and equipment).

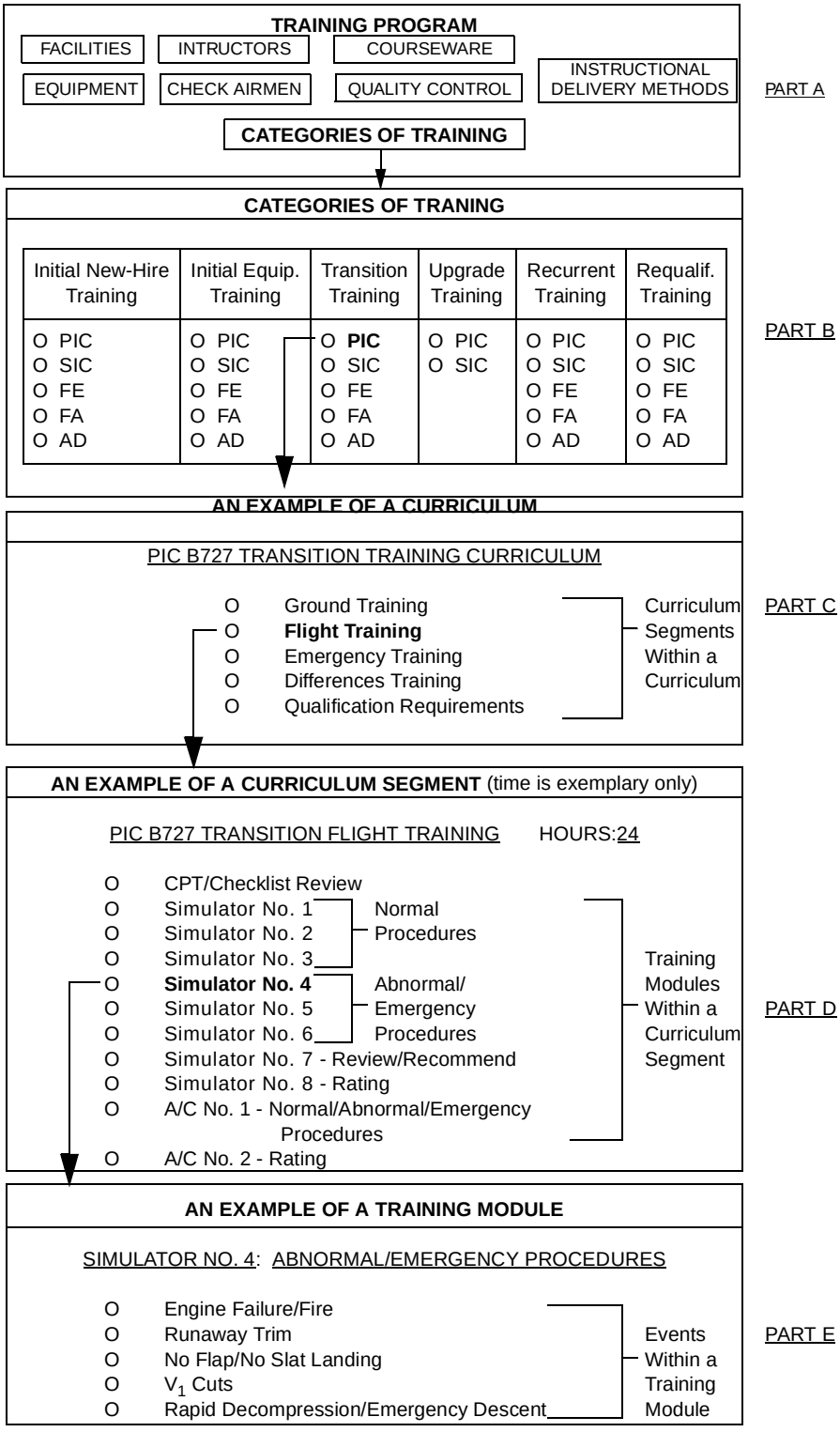
(2) Part B illustrates the six categories of training that are recognized by the FAA.

(3) Part C is an example of a curriculum which is a complete agenda of training specific to an aircraft type and crewmember or dispatcher duty position. This example depicts a PIC B-727 transition training curriculum.

(4) Part D is an example of a specific curriculum segment and shows that it consists of several training modules. This example is the flight training curriculum segment of the PIC B-727 transition training curriculum.

(5) Part E is an example of a specific training module. In this case the module is simulator lesson number 4.

FIGURE 3.2.1.1.C
SCHEMATIC DEPICTION OF TRAINING PROGRAMS



289. CATEGORIES OF TRAINING. There are six basic categories of training applicable to Part 121 and Part 135 operators. The primary factors which determine the appropriate category of training are the student's previous experience with the operator and previous duty position. Each category of training consists of one or more curriculums, each one of which is specific to an aircraft type and a duty position (for example: B-727 FE, B-727 SIC, and B-727 PIC). Training should be identified with and organized according to specific categories of training. When discussing training requirements, FAA inspectors should be specific regarding the category of training being discussed and use the nomenclature described in this handbook. POI's should encourage operators to use this nomenclature when developing new training curriculums or revising existing training curriculums. Use of this common nomenclature improves standardization and mutual understanding. The six categories of training are briefly discussed in the following subparagraphs:

A. *Initial New-Hire Training.* This training category is for personnel *who have not had previous experience* with the operator (newly-hired personnel). It also applies, however, to personnel employed by the operator who have not previously held a crewmember or dispatcher duty position with that operator. Initial new-hire training includes basic indoctrination training and training for a specific duty position and aircraft type. Except for a basic indoctrination curriculum segment, the regulatory requirements for "initial new-hire" and "initial equipment" training are the same. Since initial new-hire training is usually the employee's first exposure to specific company methods, systems, and procedures, it must be the most comprehensive of the six categories of training. For this reason, initial new-hire training is a distinct separate category of training and should not be confused with initial equipment training. As defined by this handbook, initial equipment training is a separate category of training.

B. *Initial Equipment Training.* This category of training is for personnel who have been previously trained and qualified for a duty position by the operator (not new-hires) and who are being reassigned for any of the following reasons:

(1) For Part 121 operations, the crewmember is being reassigned in one of the following circumstances:

(a) Reassignment is to any duty position on an airplane of a different group (Group I is reciprocating and turbopropeller powered and Group II is turbojet powered).

(b) Reassignment is to a different duty position on a different airplane type when the flight crewmember has not been previously trained and qualified by the operator for that duty position and airplane type.

(2) For Part 135 operations, the crewmember is being reassigned in one of the following circumstances:

(a) Reassignment is to a different duty position on a different aircraft type and the crewmember has not been previously trained and qualified by the operator for that duty position and aircraft type.

(b) Reassignment is to an aircraft of a category or class for which the crewmember has not previously qualified with that operator.

C. *Transition Training.* This category of training is for an employee who has been previously trained and qualified for a specific duty position by the operator and who is being assigned to the same duty position on a different aircraft type. For Part 121 operations, the different type aircraft must be in the same group. If it is not in the same group, initial equipment training is the applicable category of training.

D. *Upgrade Training.* This category of training is for an employee who has been previously trained and qualified as either SIC or FE by the operator and is being assigned as either PIC or SIC, respectively, to the same aircraft type for which the employee was previously trained and qualified.

E. *Recurrent Training.* This category of training is for an employee who has been trained and qualified by the operator, who will continue to serve in the same duty position and aircraft type, and who must receive recurring training and/or checking within an appropriate eligibility period to maintain currency.

F. *Requalification Training.* This category of training is for an employee who has been trained and qualified by the operator, but has become unqualified to serve in a particular duty position and/or aircraft due to not having received

recurrent training and/or a required flight or competency check within the appropriate eligibility period. Requalification training is also applicable in the following situations:

- PIC's who are being reassigned as SIC's on the same aircraft type when seat-dependent training is required
- PIC's and SIC's who are being reassigned as FE's on the same aircraft type, provided they were previously qualified as FE's on that aircraft type

G. *Summary of Categories of Training*. The categories of training are summarized in general terms as follows:

(1) All personnel not previously employed by the operator must complete *initial new-hire training*.

(2) All personnel must complete *recurrent training* for the duty position and aircraft type for which they are currently assigned within the appropriate eligibility period.

(3) All personnel who have become unqualified for a duty position on an aircraft type with the operator must complete *requalification training* to reestablish qualification for that duty position and aircraft type.

(4) All personnel who are being assigned by the operator to a different duty position and/or aircraft type must complete either *initial equipment, transition, upgrade*, or *requalification training*, depending on the aircraft type and duty position for which they were previously qualified. Tables 3.2.1.1. and 3.2.1.2. summarize these categories of training for Part 121 and Part 135 respectively. These tables indicate the appropriate category of training for normal crewmember progression or reassignment. They may not address certain situations. The guidance in this paragraph and the requirements of appropriate regulations must be followed when the tables do not address such situations.

TABLE 3.2.1.1. CATEGORIES OF TRAINING IN PART 121 OPERATIONS

This table illustrates categories of training for personnel being assigned to either a different duty position, a different airplane type, or a different airplane group with the same Part 121 operator.

ASSIGNED DUTY POSITION

CURRENT DUTY POSITION	PIC 1A	PIC 1B	PIC 2A	PIC 2B	SIC 1A	SIC 1B	SIC 2A	SIC 2B	FE 1A	FE 1B	FE 2A	FE 2B	FA 1A	FA 1B	FA 2A	FA 2B	AD 1A	AD 1B	AD 2A	AD 2B
PIC 1A	R*	T	I	I	R	I	I	I	R/I	I	I	I	-	-	-	-	-	-	-	-
PIC 1B	T	R*	I	I	I	R	I	I	I	R/I	I	I	-	-	-	-	-	-	-	-
PIC 2A	I	I	R*	T	I	I	R	I	I	I	R/I	I	-	-	-	-	-	-	-	-
PIC 2B	I	I	T	R*	I	I	I	R	I	I	I	R/I	-	-	-	-	-	-	-	-
SIC 1A	U	I	I	I	R*	T	I	I	R/I	I	I	I	-	-	-	-	-	-	-	-
SIC 1B	I	U	I	I	T	R*	I	I	I	R/I	I	I	-	-	-	-	-	-	-	-
SIC 2A	I	I	U	I	I	I	R*	I	I	I	R/I	I	-	-	-	-	-	-	-	-
SIC 2B	I	I	I	U	I	I	T	R*	I	I	I	R/I	-	-	-	-	-	-	-	-
FE 1A	I	I	I	I	U	I	I	I	R*	T	I	I	-	-	-	-	-	-	-	-
FE 1B	I	I	I	I	I	U	I	I	T	R*	I	I	-	-	-	-	-	-	-	-
FE 2A	I	I	I	I	I	I	U	I	I	I	R*	T	-	-	-	-	-	-	-	-
FE 2B	I	I	I	I	I	I	I	U	I	I	T	R*	-	-	-	-	-	-	-	-
FA 1A	-	-	-	-	-	-	-	-	-	-	-	-	R*	T	I	I	-	-	-	-
FA 1B	-	-	-	-	-	-	-	-	-	-	-	-	T	R*	I	I	-	-	-	-
FA 2A	-	-	-	-	-	-	-	-	-	-	-	-	I	I	R*	T	-	-	-	-
FA 2B	-	-	-	-	-	-	-	-	-	-	-	-	I	I	T	R*	-	-	-	-
AD 1A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R*	T	I	I
AD 1B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	T	R*	I	I
AD 2A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	I	I	R*	T
AD 2B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	I	I	T	R*

Required categories of Training: I = Initial Equipment Training. T = Transition Training. U = Upgrade Training.
R = Requalification Training. R* = Requalification Training required if person has become unqualified.
R/I - Requalification Training required if previously qualified for the duty position or Initial Equipment Training required if not previously qualified for the duty position.

TABLE KEY:

PIC = Pilot-in-Command
SIC = Second-in-Command
FE = Flight Engineer
FA = Flight Attendant
AD = Aircraft Dispatcher

1 = Group I (Reciprocating- or turbopropeller-powered airplanes)
2 = Group II (Turbojet-powered airplanes)
A = A specific airplane type (different from B)
B = A specific airplane type (different from A)

EXAMPLES:

1. Current duty position is SIC on airplane type B, a Group II airplane, assigned as PIC on same airplane group & type. Upgrade training required.
2. Current duty position is SIC on airplane type B, a Group II airplane, assigned to same duty position (SIC) on airplane type A, also a Group II airplane. Transition training required.

TABLE 3.2.1.2.
CATEGORIES OF TRAINING IN PART 135 OPERATIONS

This table illustrates categories of training for personnel being assigned to either a different duty position and/or a different aircraft type with the same Part 135 operator.

ASSIGNED DUTY POSITION

CURRENT DUTY POSITION	PIC (A)	PIC (B)	SIC (A)	SIC (B)	FA (A)	FA (B)
PIC A	R*	T	R	I	-	-
PIC B	T	R*	I	R	-	-
SIC A	U	I	R*	T	-	-
SIC B	U	U	T	R*	-	-
FA A	-	-	-	-	R*	T
FA B	-	-	-	-	T	R*

Required Categories of Training:
I = Initial Equipment Training
T = Transition Training
U = Upgrade Training
R = Requalification Training
R* = Requalification required if person has become unqualified

TABLE KEY:
PIC = Pilot-in-Command
SIC = Second-in-Command
FA = Flight Attendant
(A) = A specific aircraft type (different from B)
(B) = A specific aircraft type (different from A)

EXAMPLE:
1. Current duty position is SIC on aircraft type A. Person is assigned to PIC duty position on same aircraft type. Upgrade Training is required.

291. APPLICABILITY OF TRAINING CATEGORIES. Usually, operators will need to conduct training in all six categories of training. Recurrent training applies to all operators. Initial equipment training, transition training, upgrade training, and requalification training apply in most situations. However, transition training is not applicable for an operator who operates only one aircraft type. Initial new-hire training applies to operators who train and qualify newly hired personnel or personnel who have not been previously qualified as a crewmember by that operator. Abbreviated curriculum segment outlines of initial new-hire training may apply to merger or air carrier acquisition situations (see volume 2, chapter 3, section 1).

293. CURRICULUM DEVELOPMENT. Operators must develop one or more curriculums for each category, specific duty position, and aircraft type in which the operator conducts training.

A. *Required Curriculums.* The operator is required to develop and maintain only those curriculums that will be used. For example, if an operator specifies that all newly hired pilots must be trained first as B-727 FE's, the appropriate curriculum for that category of training would be B-727 FE initial new-hire training. The operator would not be required to develop any initial new-hire pilot training curriculums for other aircraft or duty positions. Another example would be if a Part 135 operator specifies that all newly hired pilots must be trained first as SIC's on the BE-99, then only a BE-99 SIC initial new-hire training curriculum would need to be developed and maintained.

B. *Types of Single-Engine, General-Purpose Airplanes.* A Part 135 operator may consider all makes and models of airplanes of the single-engine, general-purpose family (except turbine-powered airplanes) as a single "type" when determining the need to construct a curriculum (see paragraph 285 of this chapter).

C. *Types of Multiengine, General-Purpose Airplanes.* A Part 135 operator may consider all multiengine, general-purpose airplanes or turbopropeller and SFAR airplanes of an equivalent series as an airplane "type" when determining the need to construct a curriculum (see paragraph 285 of this chapter). Operators must provide differences training to qualify crewmembers in different models of aircraft considered the same "type" for this purpose.

D. *Types of Transport Category, Commuter Category, and Turbine Airplanes.* An operator may consider each model of transport category, commuter category, turbine-powered airplane or a helicopter as a "type" when determining the need to construct a curriculum. Operators must provide differences training to qualify crewmembers in different models of aircraft considered the same "type" for this purpose.

E. *Multiple Curriculums of a Single Category.* Operators may develop and have multiple curriculums approved for any single duty position and aircraft type. For example, an operator may have one initial new-hire curriculum approved for pilots with minimum hours and without any previous revenue experience. A second curriculum could then be approved for pilots previously qualified in service in the type of aircraft for which training is being conducted. Operators that develop multiple curriculums must carefully specify the qualifications of students in each curriculum. Some acceptable means that operators may use include the following:

- Documentation such as training records from previous employers showing the extent and scope of previous training
- Validated pretesting

F. *Curriculum Outlines.* Curriculum outlines are documents used by operators to specify the curriculum content. Outlines must contain at least the information specified in paragraph 319 of this chapter. This information is required so that the POI can determine whether the operator's curriculum meets regulatory requirements during phase three of the approval process (see paragraph 327 of this chapter). Curriculum outlines should contain enough detail so that lesson plans can later be constructed from them. Other information is not necessary, and POI's should discourage operators from including it. Detailed information should be placed in lesson plans, training manuals, and other documents maintained by the operator. This material is reviewed during phase four of the approval process (see paragraph 337 of this chapter).

G. *Completion Requirements.* Each person required to train under a curriculum must complete that curriculum in its entirety. Each student must satisfactorily complete all curriculum segments prescribed by an approved training curriculum. When a person has completed the training and checking specified by a curriculum, that person is qualified to serve in a specific duty position on a specific aircraft type.

295. CURRICULUM SEGMENTS. Curriculum segments which make up a curriculum depend upon the category of training and the duty position. The curriculum segments which must be included in each curriculum for each category of training are outlined in table 3.2.1.3. Each curriculum consists of specific curriculum segments. A curriculum segment consists of a group of broadly related training subjects and activities based on regulatory requirements. Curriculum segments are titled as follows:

- Basic Indoctrination - FAR 121.415(a)(1) or FAR 135.329(a)(1)
- Aircraft Ground Training - FAR 121.419 through 121.422 or FAR 135.329(a)(2)
- Emergency Training - FAR 121.413 or FAR 135.331
- Flight Training - FAR 121.424 through 121.426 or FAR 135.329(b)
- Special Curriculum Segment - Various rules depending on the operation
- Hazardous Materials (Carriage or Non-Carriage) - FAR 121.433(a) or FAR 135.333
- Qualification Segment - FAR 121, Subpart O, or 135.293 through 135.299

TABLE 3.2.1.3.
CATEGORIES OF TRAINING, CURRICULUMS, AND CURRICULUM SEGMENTS

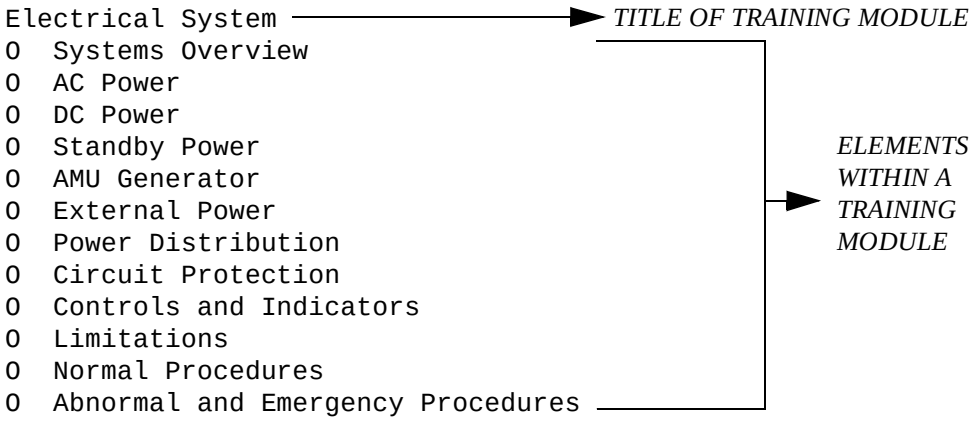
CURRICULUM SEGMENTS	CATEGORIES OF TRAINING																											
	INITIAL NEW-HIRE TRAINING				TRAINING FOR CREWMEMBERS/DISPATCHERS PREVIOUSLY QUALIFIED BY THE OPERATOR																							
					INITIAL EQUIPMENT TRAINING				TRANSITION TRAINING				UPGRADE TRAINING				RECURRENT TRAINING				REQUALIFICATION TRAINING **							
	CURRICULUMS FOR SPECIFIC DUTY POSITIONS AND AIRCRAFT*																											
	PIC	SIC	FE	FA	AD	PIC	SIC	FE	FA	AD	PIC	SIC	FE	FA	AD	PIC	SIC	FE	FA	AD	PIC	SIC	FE	FA	AD	PIC	SIC	FE	FA	AD
BASIC INDOCTRINATION	0	0	0	0	0																									
AIRCRAFT GROUND TRAINING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EMERGENCY TRAINING	0	0	0	0		0	0	0	0												0	0	0	0		0	0	0	0	
FLIGHT TRAINING	0	0	0			0	0	0			0	0	0			* 0	* 0	* 0			0	0	0							
DIFFERENCES TRAINING (IF APPLICABLE)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
SPECIAL SEGMENT (IF APPLICABLE)	THIS CURRICULUM SEGMENT VARIES WITH THE COMPANY'S OPERATIONAL NEEDS OR AUTHORIZATIONS (CAT II, LR NAV, ETC.)																											
QUALIFICATION SEGMENT																														
O APPROPRIATE FLIGHT CHECK	0	0	0			0	0	0			0	0	0			0	0	0			0	0	0							
O COMP CHECK				0	0				0	0				0	0				0	0				0	0				0	0
O IOE	0	0	0	0		0	0	0	0		0	0	0	0		0	0													
O FAM FLIGHT					0					0					0					0									0
O LINE CHECK	0					0					0					0					0									

* A proficiency check may be substituted for the recurrent flight training curriculum segment) see volume 3, chapter 2, section 7).
** The curriculum segments for requalification training depends upon the period of time the crewmember/dispatcher has been unqualified (see volume 3, chapter 2, section 11).

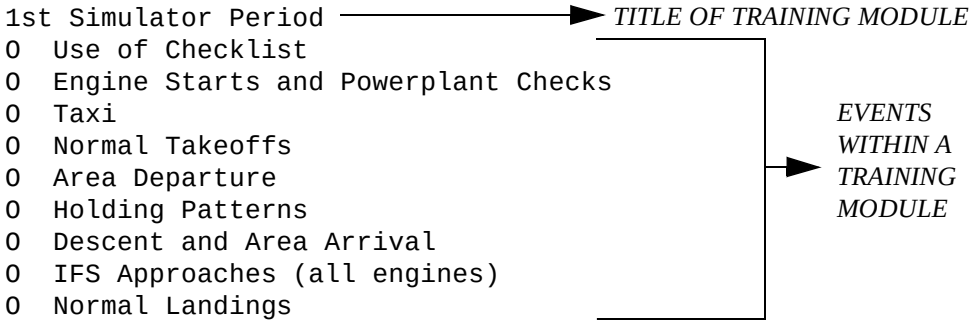
297. TRAINING MODULE CONSTRUCTION (ELEMENTS OR EVENTS). Curriculum segments consist of training modules. Training modules are in turn constructed of elements or events arranged in a logical sequence. Curriculum segments and modules should be constructed so that instruction proceeds from the most basic concept and skill to the more advanced in a building block approach. When the phrase "training module" is used, it refers to the complete courseware and instructional delivery method used by the operator to convey the information required in the training module outline. The phrase "training module outline," as used in this handbook, refers to the outline of a module incorporated in a curriculum segment for submission to the FAA for purposes of approval.

A. Operators should present training modules to the POI in outline form for initial approval. The following are examples of training module outlines. These are only examples and are not intended to imply the only acceptable methods, sequence of instructional delivery, subject titles, or amount of detail.

(1) *Example of related "elements" in an aircraft ground training module outline:*



(2) *Example of related "events" in a flight training module outline:*



B. Operators must construct training module outlines with enough detail to ensure that the POI can identify that the essential features of the subject have been addressed and that regulatory requirements have been met. The training module outline will later serve as a foundation from which the operator will develop complete and usable courseware and select appropriate instructional delivery methods. The effectiveness of courseware and instructional delivery methods cannot be evaluated before instruction begins and must, therefore, be evaluated as a final step in the approval process. Excessive detail is neither necessary nor helpful to the POI during the initial approval process.

(1) In the development of a training module, the

operator may consider the students' previous experience and training. Previous experience considerations include past experience in Part 121 or Part 135 operations; past experience with the operator's systems, methods and procedures, previous duty positions; and previous experience with an aircraft type.

(2) Once approved, training module outlines normally remain relatively fixed, requiring adjustment only when new elements are introduced. For example, existing training outlines require the addition of a Traffic Alert and Collision Avoidance System (TCAS) and operations modules with the introduction of TCAS.

(3) One reason for excluding excessive detail from the training module outline is to allow the operator flexibility in adjusting courseware without time-consuming and unnecessary reviews on the part of the POI. During the final approval process and beyond, the operator is free to make adjustments determined necessary on the basis of experience to courseware that does not add or delete elements or events from the outline. POI's may also find it necessary, on the basis of surveillance reports or other information, to require the operator to modify courseware and course outlines.

C. Curriculum segments are composed of training modules. The scope and content of each training module depends upon the category of training and the curriculum in which the curriculum segment is to be incorporated. The number and content of modules for a particular curriculum segment may vary from one category of training to another. For example, aircraft ground training modules in the upgrade training category may not need to be as comprehensive as the aircraft ground training modules in the initial equipment category of training. The amount of detail in each module determines the time required to present the instructional material in a curriculum segment. The amount of detail also controls the development of courseware, such as lesson plans and the flight maneuvers and procedures documents.

D. A single module may be used in more than one curriculum and in more than one category of training. For example, a module which specifies a review of emergency evacuation procedures for recurrent training could be the same for requalification training. POI's should, however, encourage operators to develop courseware which places emphasis on the particular category of training. For example, PIC upgrade training should emphasize duty position responsibilities. The emphasis in SIC upgrade training (FE to SIC), however, should be on piloting skills as well as on the requirements of the new duty position. Transition training should emphasize aircraft systems and the procedures and piloting skills needed to operate a different aircraft type. In many cases, operators may develop different sets of courseware from a single outline to cover differences in emphasis.

E. Checking and qualification curriculum modules consist of those events required by regulation to act in revenue service without supervision.

299. DELETED.

300. - 310. RESERVED.

[PAGES 3-171 THROUGH 3-174 RESERVED]